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AUTHOR Tremaine, L.; And Others
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ABSTRACT

This review and critique examines cognitive developmental theory and research concerning the development of gender knowledge, and social learning theory and research concerning the development of sex-role stereotypes. A preliminary integrated model of the development of gender knowledge and sex-role stereotypes in young children is presented. Kohlberg's cognitive developmental view is a primarily qualitative theory of gender knowledge based on cognitive organizational changes. Research supporting this view indicates that, by age 3, children, given clear cues, can identify the sexes. The recognition that gender is a permanent attribute, however, takes several years to stabilize. Social learning theory quantitatively discusses the development of knowledge of sex-role stereotypes in terms of input from the social environment. Research indicates that the acquisition and expression of culturally stereotyped norms of sex-appropriate role behavior begin as early as age 3 and increase throughout the preschool period. Since the development of gender knowledge and sex-role stereotypes occurs concurrently in young children, it seems that the two theoretical and empirical approaches need to be combined. A preliminary integrated model and methodology is presented which is designed to emphasize the interaction between cognitive organizational changes and the environment's role in the learning process. (Author/MS)

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Gender Knowledge and Sex-role Stereotypes in Young Children: A Critical Review and Integration[1]

L. Tremaine, P. L. Ein, and C. S. Garrett

Institute for Child Study

Indiana University

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Abstract

Two major psychological theories purport to describe and explain the development of gender knowledge and sex-role stereotypes in young children. Kohlberg's cognitive developmental view is a primarily qualitative theory of gender knowledge based on cognitive organizational changes. Research supporting this view indicates that, by the age of three, children given clear cues, can identify the sexes. The recognition that gender is a permanent attribute, however, takes several years to stabilize. Social learning theory quantitatively discusses the development of knowledge of sex-role stereotypes in terms of input from the social environment. Research indicates that the acquisition and expression of culturally stereotyped norms of sex-appropriate role behavior begin as early as age three and increase throughout the preschool period. Since the development of gender knowledge and sex-role stereotypes occurs concurrently in young children, we argue that the two theoretical and empirical approaches need to be combined. We present a preliminary integrated model and methodology designed to emphasize the interaction between cognitive organizational changes and the environment's role in the learning process.

Gender Knowledge and Sex-role Stereotypes in Young Children: A Critical Review and Integration

The preschool years constitute a crucial period in the establishment of many of the complex behavioral structures built in the course of human development (Bijou, 1975). One particularly significant area of development in those years is that of acquiring initial gender knowledge, that is, knowledge involved in identifying the self and others as to gender. The male-female dimorphism serves as a major categorization for social role definition; children learn, like adults, to attach cultural expectations and standards to gender which, whether valid or not, can generate lasting behavioral consequences (Mischel, 1970). Such expectations are called sex-role stereotypes. This early sex-role learning, although not necessarily directly predictive of later behavior (Emmerich, 1973), has been shown in longitudinal studies (Block, 1973) to be strongly related to major indices of adult psychological functioning

Present knowledge about the early development of sex-role concepts is empirically extensive but greatly in need of critical integration. In this paper, we examine the issue of young children's gender knowledge and sex-role stereotypes to provide some integration of previous relevant research and theorizing. This review and critique is organized by examining:

1. the cognitive developmental theory and research concerning the development of gender knowledge;

2. the social learning theory and research concerning the development of sex-role stereotypes;

3. a rationale for integrating theory and research in these two areas;

4. a preliminary integrated model of the development of gender knowledge and sex-role stereotypes in young children.

The Development of Gender Knowledge

Cognitive-Developmental Theoretical Framework

Research on the development of gender knowledge has been dominated by the cognitive developmental theoretical framework explicated by Kohlberg (1966), who based his work on Piaget's theory. Kohlberg (1966) postulated that the achievement of a stable gender identity provides an early organizing principle on which later sex-role development is built. The achievement of this cognitive judgment is dependent on and integrally related to the development, in Piaget's terms, of concrete operational thought which provides constancy of object categorization. A preoperational child in the preschool age range has a significantly different way of receiving and processing information related to gender than a child for whom gender categories are a clear and stable cognitive structure. This model, like other cognitive developmental models, locates the developmental dynamic within the organism which actively restructures input from the environment (Emmerich, 1973; Overton & Reese, 1973). The centrality of qualitative cognitive developmental change in this model leads researchers to emphasize issues in their empirical work such as delineation of stages in the development of gender constancy. The focus of the research examines structural, organizational changes, not changes in content.

A Review of Research Supporting a Cognitive Developmental Framework

Kohlberg (1966) has traced the development of gender knowledge to early verbal learning of one's own gender label which he reported occurs sometime late in the second year of life. In support of this view, he cites other studies (Conn & Kanner, 1947; Katcher, 1955; Rabban, 1950) that have shown a rapid and early age increase in the accuracy of gender differentiation and labeling. Rabban (1950), working with subjects from 30 months to eight years old, reported that by four years of age children of both sexes showed practically perfect labeling of gender in self and for doll stimuli. The gender identification tasks in Rabban's study used hair and clothing as conventional cues to indicate gender. Conn and Kanner (1947), using doll-play interviews to assess awareness of sex differences in children ages four to six, found hair was mentioned earliest at four years as a gender criterion, with clothes mentioned next at five years. Genital differences played a lesser role in establishing gender definitions; only half of their subjects even indicated knowledge about genital differences. More recently, Thompson and Bentler (1971), in a similar study with preschool subjects, also found hair to be a primary cue in gender classification, followed by body type and then genital cues. Dolls which had a body type conflicting with hair length gave the children the most difficulty in identification, but conflicts with genitals did not cause as much difficulty. Katcher's (1955) study

yielded similar results with a different methodology. Using cut-out figures of dressed and undressed males and females which subjects were asked to assemble, he found that children aged three to six made many more errors in appropriate identification and assembly of the unclothed figures than the clothed ones. These error rates decreased with age. Such lingering confusion as to actual genital differences would, as Kohlberg (1966) pointed out, argue against a psychoanalytic approach emphasizing the centrality of genital awareness in gender concept development.

Kohlberg (1966) has stated that the initial discrimination of gender-related cues at one point in time and space, which can be defined as gender identity, is followed by a recognition of the constancy of gender as an attribute. Prior to the achievement of gender constancy, his subjects maintained that a pictured girl could be a boy if she wanted to be or if she wore boys' clothing or had a boy's haircut.

Other studies (DeVries, 1969; Rabban, 1950; Slaby & Frey, note 1) similarly have shown important cognitive developmental changes relating to the recognition of gender constancy during this age period. Rabban's (1950) data showed that the majority of the three-year-olds interviewed did not respond correctly to a question asking whether they would be mothers or fathers at adulthood. By five, however, nearly all of the subjects replied correctly as to their future parental roles. In another related study, using male subjects ages three to six, DeVries (1969) showed a clear age-related pattern on a series of gender

constancy tasks, with older children accurately recognizing and utilizing a constancy principle while younger subjects did not. DeVries also found such performance correlated with other cognitive developmental tasks of a Piagetian nature. Slaby and Frey (Note 1) assessed children's understanding of gender stability (over time) and consistency (across surface changes) in their study of the development of gender constancy. With a sample of boys and girls ages 26 to 68 months, their results suggested four sequentially ordered, stage-like levels of response, as follows:

1. Incorrect identification of gender and no recognition of gender stability or consistency.

2. Correct identification of gender but no recognition of stability or consistency.

3. Correct identification of gender and understanding of stability but no recognition of consistency.

4. Evidence of correct gender identification as well as a recognition of stability and consistency.

Such stage-like developmental trends are conceptually appealing. However, more empirical work is needed to verify this progression, since no other known studies have systematically examined the three components of gender knowledge described in these proposed stages.

Summary of Developmental Trends in Gender Knowledge

Overall, it is clear from the evidence available that by as young as three years children have developed some basic notions of what

distinguishes the sexes and what their own gender is. However, they are still inconsistent in this understanding and do not clearly perceive gender as a consistent and stable attribute. Over the next several years, further refinement in the concept of gender leads children to recognize the inherent permanence of the attribute. From a theoretical perspective, a clearer and more detailed understanding of the developmental course of gender knowledge would be helpful in untangling the etiology of sex-role learning. As several major researchers (e.g., Kohlberg, 1966; Maccoby & Jacklin, 1974) have indicated, these cognitive developments may influence the definition and acquisition of sex-appropriate behavior by providing a basis for selective attention to same-sex models, as well as by affecting the processing and eventual utilization of socially available sex-role information.

Methodological Summary and Critique

A relatively consistent approach has been used in many of the gender knowledge studies; this approach involves presenting subjects with pictorial stimuli (including certain salient gender cues such as hair length and clothes) which they are asked to label as to gender, often through a series of transformations in one or more of the salient gender cues. In addition, children are often asked to identify their own gender and to assess what impact situational or temporal changes might have upon that attribute.

The delineation and presentation of a series of potentially salient cues is an important strength in several of these studies but, of the studies cited, only DeVries (1969) and Thompson and Bentler (1971)

have attempted to vary these cues systematically enough to provide data as to their relative importance in gender discrimination at various ages. Furthermore, some supplementary exploration of the use of stimuli other than pictures, dolls or self (e.g., live or filmed models) is called for since most of children's significant real-life discrimination of gender occurs in situations with such complex stimuli. Another needed variation is the utilization of gender identifiers other than "mommy" or "daddy" (as in Rabban, 1950; Slaby & Frey, Note 1; Thompson & Bentler, 1973) for questions asking subjects to predict their future gender. The use of parental role labels may confound children's attitudes toward parents with identification of gender.

Almost all of the studies examining gender knowledge are cross-sectional in nature, confounding age and generational differences (Schaie, 1973). Longitudinal and mixed designs are needed to investigate the development of gender knowledge from a cognitive-developmental framework.

The Development of Sex-role Stereotypes

Social Learning Theoretical Framework

Research examining the development of sex-role stereotypes is primarily from a social learning framework. There is no one major acknowledged theoretical statement explicating the development of sex-role stereotypes; however, Mischel (1966, 1970) does provide a comprehensive discussion of the topic within a social learning framework. He emphasizes the processes of modeling and differential reinforcement involved in the acquisition and performance of sex-role

stereotypes. This model, like other social learning models, places the major locus of the developmental dynamic in the social environment external to the organism who is seen as largely reactive (Emmerich, 1973; Overton & Reese, 1973). Thus, the emphasis in this model on the quantitative changes in knowledge about sex-role stereotypes leads researchers to focus on changes in content of stereotypes in relation to the environment, such as amount of culturally-accurate stereotyped knowledge acquired by a certain age.

A Review of Research Supporting A Social Learning Framework

The acquisition and expression of sex-typed standards of appropriate behavior begins well before complete gender constancy is reached. (e.g., Fauls & Smith, 1956; Nadelman, 1974; Schell & Silber, 1968; Thompson & Bentler, 1973; Vener & Snyder, 1966; Williams, Bennett, & Best, 1975). Much of the research in this area has shown the high accuracy of young children's sex-role knowledge as measured by adult standards. Using subjects ages five and eight, Nadelman (1974) measured children's knowledge about adult norms of sex-appropriateness of 40 sex-typed adult and child items. She found that even the youngest subjects showed highly accurate knowledge of culturally appropriate sex-typing with a mean accuracy score of 97% according to adult standards. Vener and Snyder (1966, asked subjects 30 to 60 months old to indicate sex linkages for 44 artifacts of adult roles. On the average, subjects had an 84% level of accuracy as measured by agreement with adult judges. Older children were most accurate, but even the youngest subjects

showed 75% accuracy. Both sexes were more accurate in their linkage of objects associated with the female role. Williams, Bennett, and Best (1975), using kindergarten, second, and fifth grade children, found that children were more accurate in their stereotypes about adult masculine behaviors than about adult feminine behaviors. The authors attributed this result to the manner in which masculine behavior stereotypes are more readily associated with clear child behaviors such as aggression and loudness. It is possible that masculine behaviors but female-related objects are more available for sex-role learning by young children.

Most of the research cited on children's knowledge and expression of sex-role standards has used the sex-typing judgments of adults as a reference point. The few studies more directly measuring children's own perceptions of sex roles (e.g., Emmerich, 1959; Hartley, 1960; Landreth, 1963) have generally shown that men's and women's roles are viewed relatively traditionally by young children. Hartley (1960), for example, did an exploratory study of sex-role perceptions in subjects ages five to eleven years. She found that the children perceived women as engaging primarily in domestic activities and men as earning money. Landreth (1963) used picture stimuli to elicit from three- and four-year-old children their notions about the sex-appropriateness of selected parental care activities. Her results showed that mothers were chosen significantly more often as the givers of care and companionship for children of both sexes. Emmerich (1959) showed paired drawings of parent and child figures of both sexes to three- to six-year-old subjects and asked them to attribute selected statements to one of the

figures. Results showed girls assigned facilitative functions to female adults and children and interfering functions to males at both age levels. Boys made similar attributions for parents, but associated facilitation with males and interference with females at the child level.

Summary of Developmental Trends in Sex-role Stereotypes

Reviewing the results of the research on the early development of sex-role stereotypes, evidence indicates that children begin very early to acquire socially defined notions of the linkage of certain behaviors and objects to each sex. The acquisition and expression of such stereotyped norms of sex-appropriate role behavior is a developmental process beginning as early as three and increasing with age throughout the preschool period. Sex differences in the development of these stereotypes are less clear than those associated with age, especially if knowledge rather than preference is used as a criterion. From a theoretical perspective, a more detailed understanding of the phenomenology of children's sex-role concepts seems critical to a clearer picture of the sex-typing process since children's own stereotypes, whether accurate or not, may serve as standards for the self-regulation of behavior.

Methodological Summary and Critique

In the work on sex-role stereotypes, the major methodologies in evidence involve heavy reliance on adult-defined stereotypes for comparison and validation. In many cases, this validation procedure

is appropriate to the purposes of the study, but such an orientation provides an incomplete picture of the children's concepts of sex roles. Measuring the extent to which children hold the same stereotypes as adults does not allow for the possibility that preschoolers have sex-role stereotypes but that these stereotypes are different from those of adults. Several studies cited (e.g., Emmerich, 1959; Hartley, 1960) did measure children's beliefs more directly, but this research is limited partly by looking only at family-related roles, leaving uncertain the children's more general notions of sex roles. Further, these studies are all over ten years old and therefore do not reflect possible secular changes in sex-role concepts since that time. More recent analysis of the actual content and nature of children's responses to a variety of role ascription tasks is needed.

Another methodological limitation is the use of various sex-typing tasks (e.g., Nadelman, 1974; Vener & Snyder, 1966; Williams, Bennett, & Best, 1975) which ask children to associate various objects or actions with one or the other gender. The inclusion of an androgynous choice (i.e., allowing the child to ascribe the activity or object to both sexes) should give a more accurate picture of the presence or absence of children's stereotypes.

The kinds of secular changes in sex-role attitudes that may make research done in the 1950's outdated again points to the need for studies which utilize longitudinal or mixed designs to assess and distinguish ontogenetic and cultural changes in children's sex-role concepts.

Another methodological advance needed in such stereotyping studies is the further use of item analysis techniques to determine if some types of stereotypes are acquired earlier than others. The Williams, Bennett, and Best study (1975) is suggestive in this regard since the brief item analysis in their results showed some items (e.g., aggressive, strong) were acquired earlier than others (e.g., confident, logical).

In addition, the relationship between children's sex-role stereotypes about adults and those about peers, as well as the timing in acquiring each set of stereotypes, needs to be empirically explored.

Theoretical and Empirical Needs: Integration of the Development of Gender Knowledge and Sex-role Stereotypes

As this review indicates, the two major theories in these areas and the research that supports them follow basically parallel, independent tracks. Kohlberg's cognitive developmental view has contributed a qualitative developmental theory of gender knowledge based on cognitive organizational changes. Cognitive developmental research has at least started to explicate the course of that development. The social learning view has contributed a quantitative theory about the development of knowledge of sex-role stereotypes based on input from the social environment. Research derived from this view also has started to empirically describe this development.

Much of the research from both camps is not useful in evaluating the theories themselves. As Emmerich (1973) has suggested, specific predictions need to be made from each theory. These predictions could

then be empirically explored, thus providing direction to the research as well as evaluation of the theories. The results would then be used either to support or alter the theories. A few researchers (e.g., Slaby & Frey, Note 1) have done this.

However, the development of gender knowledge and sex-role stereotypes occurs concurrently in young children. To describe and explain these areas, the two theoretical and empirical approaches need to be combined. By empirically examining the two together, the developmental courses of both can be interrelated. By combining the two theories and purposely explicating the interrelationships of the social environment (content of sex-role stereotypes) and cognitive change (organization) the result should be a more powerful, discriminating model with good predictive validity.

A Preliminary Integrated Model of the Development of Gender Knowledge and Sex-role Stereotypes in Young Children

We have developed a preliminary integrated model of sex-role and gender knowledge development. It is based on Kohlberg's (1966) and social learning models, as well as Piaget's work (e.g., 1952a, b) the development of representational thought, Emmerich's (1973) explication of the relationship of Piaget's ideas on preoperational thought to the specific issue of gender constancy, and Flavell and Wohlwill's (1969) four-phase model for the development of cognitive structures. It emphasizes the interaction between cognitive changes in organization and the environment's role in the learning process associated with

sex-role development:

1. The child learns to recognize and label her/his own gender and that of persons presenting clear and conventional gender cues. This initial gender identification is largely an associational learning process: a verbal label is applied as others most visibly seem to use it. Temporal or situational transformations in salient cues, however, usually lead the child to misidentify gender. At this early point the child might even believe that volition affects gender, i.e., boys who want to be girls could change gender.

At the same time as this labeling process is being learned, the child is also learning to associate certain actions and objects with those labels. This learning is largely of the cumulative, environmentally organized sort described by social learning theory, but it is processed in cognitive ways characteristic of Piaget's description of the early preoperational child. This means that much of the association between gender and behavior is random and erroneous, conclusions drawn from the social "evidence." Similarly, the extent of sex-role knowledge is more dependent on actual experience and reception of clear and available social cues.

2. As the initial ability to label gender by conventional cues broadens and generalizes, the child begins to develop a rudimentary expectation that gender will remain constant. Shifts in striking cues may still lead to misidentification, especially if several cues are changed at once, but the child is gradually stabilizing a belief that gender is a permanent attribute. Mixed patterns of responses on

constancy tasks would be expected at this point, and further probing would probably show complex intermediate states of understanding, i.e., the child may believe that a girl with short hair and boy's clothes is substantively a girl but with the changed label of "boy."

Cognitive structural changes reflected in this increasing understanding of the relative stability/constancy of gender continue to affect the organization and processing of incoming information on sex-typing of behavior and objects. How the interaction between organismic structural changes and social/environmental input affects the actual nature and extent of sex-typing remains to be explored, but the nature of both social input and organismic cognitive processing needs to be considered. With increasing age, fewer erroneous associations between gender and behavior or objects would be expected. For both gender and sex-role concepts at this point, an organizational cognitive framework is present, but the "data" is not always correctly categorized by the child.

3. By the end of the preoperational period, a child would assert that situational or temporal changes in gender cues would not affect the stability and constancy of gender. The possibility of such an identity change would be consistently denied, and the constancy principle behind such denial could probably be verbalized by the child.

By this point in cognitive development, the child would likely have a relatively clear notion of social expectations regarding sex roles and could articulate those standards even for situations that go beyond her/his own experience. This kind of extrapolation

to a broader and broader range of situations represents a shift to actual in-depth stereotyping, a cognitive process more complex than the earlier simple association of behaviors with gender. The recognition of the permanence of gender may in some way facilitate this shift, but, more likely, the two are co-occuring events both stemming from increasing cognitive sophistication.

Needed Methodological Alterations: Synthesis

To explore the development of gender knowledge and sex-role stereotypes in young children and to test an integrated model such as the one presented, research methodologies from the two major theoretical camps need to be combined and expanded. We believe changes in methodology are called for in the following three areas:

1. Focus: in addition to identifying developmental trends in the accuracy of children's stereotypes as compared to adults, the content of children's stereotypes needs to be more thoroughly examined from a developmental view. To examine the interrelationship between the development of gender knowledge and sex-role stereotypes, questions assessing both need to be administered to the same groups of children. In addition, much of the research in these areas has been done with university-related children. Conclusions from such work cannot necessarily be generalized to children from other backgrounds and systematic study of socioeconomic influences carried out until a broader range of subject backgrounds is included in research.

2. Design: longitudinal and mixed designs are needed to untangle generational, maturational, and age differences in the area of gender

knowledge and sex-role stereotypes. Designs should also be utilized that balance for sex of interviewer, a variable often ignored but shown in at least one study (Williams, Bennett & Best, 1975) to affect the expression of young children's sex stereotypes.

3. Procedures: more complex stimuli, systematically varied as to their source and subtlety, should be used for identification tasks in examining gender knowledge. To allow better characterization of the content of sex-role stereotypes, the methodologies used should include androgynous as well as sex-typed response choices.

Summary

This paper presents a review of the major psychological work that has been done in the areas of the development of gender knowledge and sex-role stereotypes in young children. We include a discussion of two major theoretical views, Kohlberg's cognitive developmental and social learning, and the empirical work which supports these views. We argue that the time has come for a theoretical and empirical integration of the work and present an example of a preliminary integrated model, as well as research strategies needed to explore and develop such a model.

Reference Note

Note 1. Slaby, R. G. & Frey, K. S. Development of gender constancy and selective attention to same-sex models. Paper presented at the biennial meeting of the Society for Research in Child Development, Denver, Colorado, 1975.

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